

Attorney Docket No.: FEX 001

IN THE SPECIFICATION:

Kindly amend the paragraph at page 8, lines 12-22 as set forth below:

B1
Base system 4 also communicates with other data processing systems, such as a payment processing center 10b for a biller such as a utility company (via communication link 12b) and an electronic payment processing center for a financial institution 10c (via communication link 12c). Payment information is processed by base system 4 and communicated to the appropriate processing center 10b, 10c as will be discussed in further detail below. One skilled in the art will recognize that multiple credit card authorization centers 10a, billers payment processing centers 10b, and electronic payment processing center for financial institutions 10c will be part of an overall system, although only one representative example is shown for each type of company. Alternatively, POS terminal 2 can communicate directly with payment processing center 10b or electronic payment processing center for financial institution 10c via communication link links 14b, 14c, respectively.

Kindly amend the paragraph at page 8, line 31 to page 9, line 7 as set forth below:

B2
Also illustrated in Figure 1 is fund transfer agent 22, which communicates with base system 4 via communication link 24. Fund transfer agent 22 communicates with various third party services, such as with an automated clearinghouse (ACH) service bureau 26, financial institution 28, biller 30, and the like. In the preferred embodiments, fund transfer agent 22 is responsible for ensuring the payment to the individual billers 30, 10b, from the funds received at the POS location. In alternative embodiments, base system 4 can communicate directly with the

Attorney Docket No.: FEX001

B2
ACH 26, financial institution 28, or biller 30 and can bypass fund transfer agent 22.

Kindly amend the paragraph at page 9, lines 21-27 as set forth below:

B3
Additionally, the document passes before Magnetic Ink Character Recognition ("MICR") reader 54, where information that is stored on the document in the form of magnetic ink is detected and decoded. The use of MICR readers 54 is well known in the art and is particularly advantageous for electronic processing of checks. POS terminal 2 also contains bar code reader 54 55, which reads bar code or other optically encoded information. In some embodiments, bar code reader 54 55 is integrated in with scanner 48.


Kindly amend the paragraph at page 10, lines 8-15 as set forth below:

B4
Also illustrated in Figure 2 is input / output device 58, which includes an output display 60, such as a LCD or LED display, and input keypads 62 for manually inputting information into POS terminal 2. Keypad 62 also includes a slot and magnetic strip reader 63a for use with, e.g. credit cards, debit cards, identification cards, and the like, which use a magnetic medium for data storage. The card can be inserted into the slot and the information stored on the card can be read by the magnetic strip reader 63a, as is known in the art. Alternatively, the slot and card reader can be placed adjacent the paper guide 40, as shown by 63b.

Kindly amend the paragraph at page 11, line 6 to page 12, line 3 as set forth below:

B5
The document or bill 46 is then inserted into paper guide 40 (Figure 2) by either the clerk or the bill payer, where the bill 46 passes before MICR reader 54, scanner 48, and bar code

Attorney Docket No.: FEX 001



reader 5455, as indicated by step 102 of Figure 4. Note that, depending upon the document type 46 (i.e. whether a bill or a check or some other type of document), not all readers will be active. For instance, MICR reader 54 is generally used to read magnetic ink on checks, but such magnetic ink is not generally used on bills 46. An advantageous feature of the preferred embodiment is that scanner 48 and OCR circuitry 52 have access to a pre-stored template of how document 46 is laid out. This template is provided by base system 4 and is stored in system memory 53 of POS terminal 2 (Figure 2). From the pre-stored template, POS terminal 2 knows where OCR readable information is located on the document 46 (and hence where in the scanned image of the document as well) and what type of information is located there (e.g. account number, amount due, and the like). Using the pre-stored template, OCR circuitry 52 converts the image data from scanner 48 into electronic information about the pending transaction. One skilled in the art will recognize that the pre-stored template can be embodied as a stored set of coordinates identifying where on the scanned image certain decodable information (e.g., bar code or alpha-numeric characters) are located. These coordinates are generally relative to a predefined portion of the image of the paper document 46, such as the upper left hand corner. The coordinates can then be defined as so many pixels (picture elements) from the predefined reference point. Along with the stored coordinates, POS terminal 2 also stores predefined routines or algorithms by which to compare the scanned image to the template in order to derive the desired information captured from the scanned document 46. An advantageous feature of the preferred embodiments is that, although a duplicate template is stored at POS terminal 2, the template can be readily updated from base system 4 whenever necessary. As such, the templates can be quickly updated when, for instance, a biller changes the layout of the bill document 46.

Attorney Docket No.: FEX001

Kindly amend the paragraph at page 12, lines 17-25 as set forth below:

Each image stored to image memory 50 is assigned a unique identifier number. This identifier number will be linked to a separate unique identifier number that is assigned to each transaction. In the preferred embodiments, the image identifier is generated using the serial number of the POS terminal 2 from which it is created, the date and/or time the image was formed, and a sequence number (i.e., whether the image was the first, second, etc. image scanned on that day by that terminal). Note that while POS terminal 2 is described generically, in the preferred embodiments, the terminal may be implemented as two separate devices that are linked together. ~~One portion of the terminal~~

Kindly amend the paragraph at page 12, line 27 to page 13, line 9 as set forth below:

In some embodiments, all information necessary for processing the transaction (except for amount paid) will be obtained by scanning the bill 46 and converting the image into electronic data using OCR circuitry 52, MICR circuitry 54, and/or bar code reader 54 55. Alternately, however, relevant transaction data is manually input by the store clerk in order to ensure that the transaction data is recorded accurately and completely, as indicated by step 110 of Figure 4. For instance, the store clerk will manually input the account number from the bill 46 and preferably re-enter the account number a second time. POS terminal 2 will compare the two instances of the account number input by the clerk to ensure that they match. In the event of a mismatch, POS terminal 2 will request that the clerk re-enter the account number. In this way, the possibility that the wrong account will be credited with the payment is minimized. Once the

Attorney Docket No.: FEX 001

B6 account number has been verified, POS terminal 2 will prompt that the clerk enter in the dollar amount of the bill 46.

Kindly amend the paragraph at page 16, line 24 to page 17, line 11 as set forth below:

B7 Figure 5 illustrates an exemplary transaction record 200. Each transaction processed by payment server 70 will have a transaction record stored for it in substantially similar form. The record includes a series of fields providing specific transaction data, including fields 202 and 204 that contain the customer's ~~account number and the biller number~~ biller number and account number, respectively. Information regarding the amount paid, the fees paid, and the date and time of payment are stored in fields ~~208, 201, and 212~~ 206, 208 and 210, respectively. Field 214 contains the image trace number for the scanned image of the transaction document(s) such as the bill 46 itself and possibly a check or money order. In the presently preferred embodiments, money order payments are not processed electronically, hence it may be unnecessary to scan and archive an image of a money order. In future embodiments, however, money orders may be truncated and handled electronically as well. Such processing is within the spirit of the present invention. Note that in some instances, more than one image number will be associated with a particular transaction. Also note that the data that was retrieved from the document(s), such as OCR data 216 and MICR data 218 is also stored in transaction record 200 after having been converted from optical or magnetic format into an electronic format by POS terminal 2 and transmitted to base system 4.

Kindly amend the paragraph at page 18, line 31 to page 19, line 16 as set forth below:

Attorney Docket No.: FEX001

B8

In the preferred embodiments, central computer [4] 72 creates a payment fund transfer file at the end of each business day. This fund transfer file is generated from the transaction information that has been uploaded from the POS terminals 2 throughout the day. Specifically, the fund transfer file will include transaction data, including identifying data and financial data, to complete the payment transaction, as is well known to one skilled in the art of electronic bill payment processing. The fund transfer file is transmitted to the fund transfer agent's server 78 for processing. The fund transfer agent will in turn generate the appropriate electronic funds transfer instructions to cause funds to be transferred to the various billers for whom payments had been received (at the POS locations) throughout the day. In this way, the biller receives payment the next day after the bill 46 is paid at the POS location, rather than waiting for several days for the payment to be sent through the mail or for the funds to be transferred from the POS location to the bill paying service and thence from the bill paying service to the biller. Note that a separate electronic fund transfer operation will also take place wherein the funds received by the POS location (i.e. the retailer), less the retailer's share of the service fees, will be transferred to the service provider.

Kindly amend the paragraph at page 22, line 7 to page 23, line 2 as set forth below:

B9

Some customers (i.e. bill payers) may wish to pay for their bills 46 with a check, as opposed to cash. The above described system accommodates and improves upon check payment processing as well. Returning to Figure 2, after scanning the bill 46 itself and entering the appropriate account and payment information, the clerk next places the customer's check (after it has been filled out and signed by the customer and stamped with the correct electronic check

Attorney Docket No.: FEX 001

Bid

conversion, or "ECC," authorization) into paper guide 40. Motor 44 drives rollers 42 which in turn guide the check through paper guide 40 past MICR reader 54, scanner 48 and bar code reader ~~54~~ 55. In this instance, MICR reader 54 will detect the magnetically encoded information on the check document and will convert it into electronic data. In addition, scanner 48 will scan an image of the check and store the image to image memory 50. As above, the image will have a unique identifier attached to it, which identifier will be linked to the transaction identifier assigned to the particular transaction being processed. Note that, in this instance, two images are associated with the particular transaction -- the image of the bill stub and the image of the check. A further advantageous feature of the described embodiments is the ability to accept multiple payment forms for a single bill 46. For instance, a bill payer might wish to pay for a single bill 46 using some combination of any of cash, a check, and a money order (this feature is particularly advantageous where multiple residents share a single residence and share the obligation to pay utility bills, for instance). The various payment types and images of the payments (in the case of checks and money orders) can be commonly linked to the particular bill 46 by way of the unique transaction identifier provided by base system 4. One skilled in the art will recognize that the different payment types can be distinguished from one another by way of, e.g., a suffix identifier associated with each payment type. Likewise, each image can share a base image identifier supplemented with an appropriate suffix.
